

291
6.6
HW

Key

P 326 15-31 odd

15. $y = -2(x+3)^2$

$V(-3, 0)$

$x = -3$ a.o.s

opens down

17. $y = 5x^2 - 6$

$V(0, -6)$

a.o.s $x = 0$

opens up

19. $y = -x^2 - 4x + 8$

$y - 8 = -x^2 - 4x$

$y - 8 = -1(x^2 + 4x + 4)$
-4

$y - 12 = -(x+2)^2$

$y = -1(x+2)^2 + 12$

$V(-2, 12)$

$x = -2$

opens down

21. $y = -3x^2 + 12x$

$y = -3(x^2 + 4x + 4)$
-12

$y - 12 = -3(x+2)^2$

$y = -3(x+2)^2 + 12$

$V(-2, 12)$

$x = -2$

opens down

23. $y = 4x^2 + 8x - 3$

$y + 3 = 4(x^2 + 2x + 1)$
+4

$y + 7 = 4(x+1)^2$

$y = 4(x+1)^2 - 7$

$V(-1, -7)$

a.o.s $x = -1$

opens up

25. $y = 3x^2 + 3x - 1$

$y + 1 = 3(x^2 + x + \frac{1}{4})$
+3/4

$y + 1\frac{3}{4} = 3(x + \frac{1}{2})^2$

$y = 3(x + \frac{1}{2})^2 - 1\frac{3}{4}$

$V(-\frac{1}{2}, -1\frac{3}{4})$

a.o.s $x = -\frac{1}{2}$

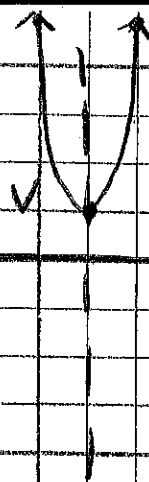
opens up

$$1. y = 4(x+3)^2 + 1$$

$$V(-3, 1)$$

$$(2, 5)$$

$$(-4, 5)$$



$$29. y = \frac{1}{4}(x-2)^2 + 4$$

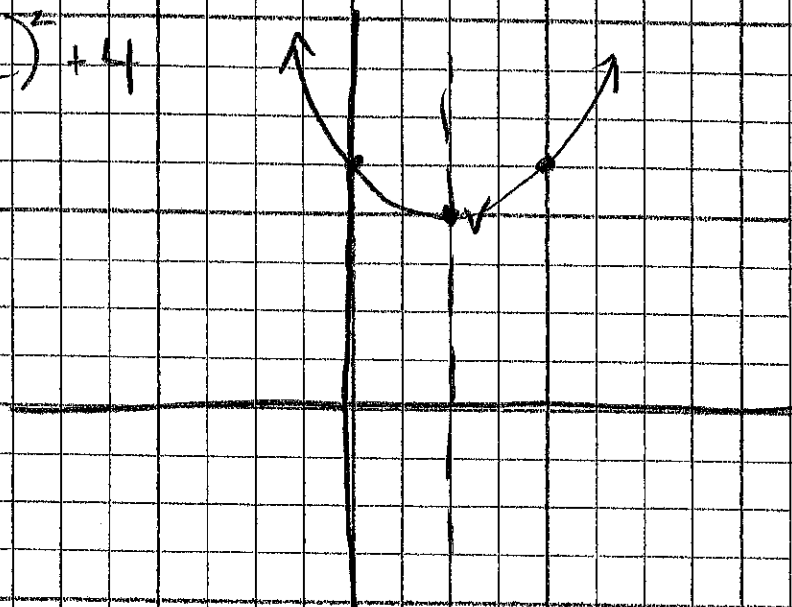
$$V(2, 4)$$

axis

$$x = 2$$

$$(0, 5)$$

$$(4, 5)$$



$$31. y = x^2 + 6x + 2$$

$$V \quad \frac{-b}{2a} \quad \frac{-6}{2}$$

$$V(-3, -7)$$

$$(0, 2)$$

$$(-6, 2)$$

